

BERYLLIUM COPPER CB 101



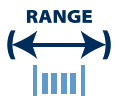
Key Features

- Good conductor of electricity
- Age hardenable
- Good mechanical properties

IMPORTANT

We will manufacture to your required mechanical properties.

key advantages to you, *our customer*



0.025mm to 21mm
(.001" to .827")



Order 3m to 3t
(10 ft to 6000 Lbs)



Delivery:
within 3 weeks



Wire to your spec



E.M.S available



Technical support

BERYLLIUM COPPER CB 101 available in:-

- Round wire
- Bars or lengths
- Flat wire
- Shaped wire
- Rope/Strand

Packaging

- Coils
- Spools
- Bars or lengths



BERYLLIUM COPPER CB 101

Chemical Composition			Specifications	Key Features	Typical Applications
Element	Min %	Max %	ASTM B196 ASTM B197 BS 2873 BS EN 12166	Good conductor of electricity Age hardenable Good mechanical properties	Springs Electrical connectors and switches Electronic components
Be	1.70	2.10			
Fe	-	0.20			
Ni	-	0.30			
Co	-	0.30			
Cu	BAL		Designations		
			W.Nr. 2.1247 UNS C17200 AWS 140		

Density	8.25 g/cm ³	0.298 lb/in ³
Melting Point	980 °C	1800 °F
Coefficient of Expansion	17.8 µm/m °C (20 – 100 °C)	9.9 x 10 ⁻⁶ in/in °F (70 – 212 °F)
Modulus of Rigidity	47 kN/mm ²	6817 ksi
Modulus of Elasticity	123 kN/mm ²	17840 ksi

Heat Treatment of Finished Parts					
Condition as supplied by Alloy Wire	Type	Temperature		Time (Hr)	Cooling
		°C	°F		
Annealed	Age Harden	315 – 320	600 – 610	3	Air
Spring Temper	Age Harden	315 – 320	600 – 610	2	Air

Properties				
Condition	Approx. tensile strength		Approx. operating temperature	
	N/mm ²	ksi	°C	°F
Annealed	<600	<87	up to +200	up to +390
Annealed + Aged	800 – 1200	116 – 174	up to +200	up to +390
Spring Temper	800 – 1200	116 – 174	up to +200	up to +390
Spring Temper + Aged	1200 – 1600	174 – 232	up to +200	up to +390

The above tensile strength ranges are typical. If you require different please ask.